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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/767,708	01/24/2001	Toshinori Obata	ASA-960	3677

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EXAMINER

KIANERSI, MITRA

ART UNIT PAPER NUMBER

2145

DATE MAILED: 03/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/767,708

Applicant(s)

OBATA, TOSHINORI

Examiner

Mitra Kianersi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 October 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12 and 13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12 and 13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 January 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 2000-018480.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Arguments

Applicant's arguments filed 10/04/2004 have been fully considered but they are not persuasive.

Applicant on page 5, line 7 argues that Knight is relied upon for disclosing an information processing system having a plurality of host systems each having resources including instruction processors and memory segments. However, the invention is directed to resource allocation among host systems constituting a hot standby system, wherein the resource for a Spare previously reserved can be enhanced and used by the current host system. Knight in col 22, lines 12-26 disclose that FIGS. 12A through 12C illustrate the major data structures held in shared memory 1003. FIG. 12A shows the overall structure of topology information in shared memory. This includes header block 1201, a collection of adapter records 1202, a collection of SSA node records 1203, hash table for device universal identifiers 1204, and table of string number universal identifiers 1205. Header block 1201 defines the memory allocation for shared memory 1003 and includes certain additional information such as the process ID of the network daemon. Hash table 1204 is used for rapid (semi-random) access to a particular SSA node record in collection 1203, as explained below. String table 1205 is used to store the universal identifier of strings of devices (as used here, "string" means an SSA bus, and includes a closed string, or loop, topology).

Applicant on page 5, line 14 argues that Knight discloses a distributed storage network management program that manages a network of storage devices, which may be attached to multiple host computer systems. However, Knight does not disclose reserving the resources with a table indicating assignment information of each of the resources, in which the reserved resources are automatically assigned to the other host system constituting a standby system by writing in the table standby system is switched. Knight in col 14, lines 47-67 discloses that a local agent stores information about "resources" and "primary relationships". A "resource" is an object of interest in the analysis of a storage network; it could be a physical device, such as a physical disk

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or adapter, or a logical construction such as a logical disk (which is really a collection of physical disks) or an SSA bus (a form of device bus, which is really a collection of individual bi-directional binary physical links). A "primary relationship" refers to a direct physical or logical connection from one type of resource to another. Primary relationship information is not reflexive; information in one direction may be different from information in the other. Examples of primary relationships are: Host to Host Bus, Host Bus to Adapter, Adapter to Device Bus, Adapter to Logical Disk, Device Bus to Physical Disk, Device Bus to Unknown Device, Logical Disk to Physical Disk, the local agent also stores "attribute" information for various resources, i.e., information which describes a resource.

Drawings

The drawings were received on Jan/24/2001. These drawings are acceptable.

Priority

The certified copy of the priority document, JP 2000-018480 has been received.

Information Disclosure statement

The information disclosure statement PTO-1449 form filed on January 24, 2001 has been received.

Claims 1-11 have been canceled.

New claims 12 and 13 are the pending claims.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 12-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Knight et al. (US Patent No. 6,289,375).

1. As per claim 12, an information processing system comprising:
two host systems connected to each other and each having resources including a plurality of instruction processors and a plurality of memory segments, (the storage network is a network of storage devices and host adapter devices connected by a communications medium employing the IBM Serial Storage Architecture (SSA) communications protocol. This protocol is designed to efficiently support transmission of data between multiple hosts and storage devices in a storage network, but does not easily support communication of data at a higher programming level. Specifically, it does not readily support typical client-server communication, such as remote procedure calls. The hosts are connected to each other (and optionally to a separate computer system which executes the manager) via a second network, designated the information processing (IP) network. The IP network typically operates in accordance with a TCP/IP. The IP network is designed to readily support client-server

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communication. Therefore, the IP network supports communication between manager and agents. Col 3, lines 55-67 and col 4, lines 1-5)

wherein said two host systems constitute a hot standby system with respect to each other, (the hosts are connected to each other (and optionally to a separate computer system which executes the manager via a second network, designated the information processing (IP) network. The IP network typically operates in accordance with a TCP/IP. The IP network is designed to readily support client-server communication. Therefore, the IP network supports communication among manager and agents. Col 3, lines 64-67) and (col 4, lines 1-4)

each of said two host systems has a table indicating assignment information of each resource, (maintain all this information in tables in the manager, col 15, lines 59-60) the resources for spare in one host system of the hot standby system are reserved to the other host system of the hot standby system by writing in said table, (maintain all this information in tables in the manager, col 15, lines 59-60)

said reserved resources are automatically assigned to the other host system of in said table after the hot standby system by writing switched. (a pre-determined threshold, col 25, line 18)

2. As per claim 13, an information processing system, wherein said resources for space in the one host system are automatically assigned to the one host system by writing in said table when the one host system needs enhancement, and (program segments are loaded into memory 302 from storage as needed. Col 7, lines 45-46) said resources for space in the one host system are automatically assigned to the other host system by writing in said table when the other host system requests enhancement. (Resource tag 906 is a unique identifier assigned to each resource, to distinguish it from all other resources of the same major and minor type. Resource tag 906 is derived from the device UID and/or machine ID, and contains information used by the central manager to distinguish and uniquely identify devices found by different hosts. I.e., the manager used resource tag 906 to determine whether two "resources"

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found be two separate hosts are in fact the same device. When the manager issues a LL_List Resources call to the local agent, it specifies a resource type by technology code, major type and minor type. The manager may specify wild card parameters. The list 901 returned by the local agent contains all resources, which match the specified parameters. Col 15, lines 28-41)

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mitra Kianersi whose telephone number is (571) 272-3915. The examiner can normally be reached on 8:00AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Valencia Martin Wallace can be reached on (571) 272-6159. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



VALENCIA MARTIN-WALLACE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700

Mitra Kianersi
2/25/2005